

EXHIBIT 7



drawings, a revised construction cost estimate, and an implementation schedule. The process finalization memorandum will be used as a basis for updating the conceptual design report under the subsequent design effort.

This memorandum presents an Alternatives Analysis for the following two VOC treatment technologies:

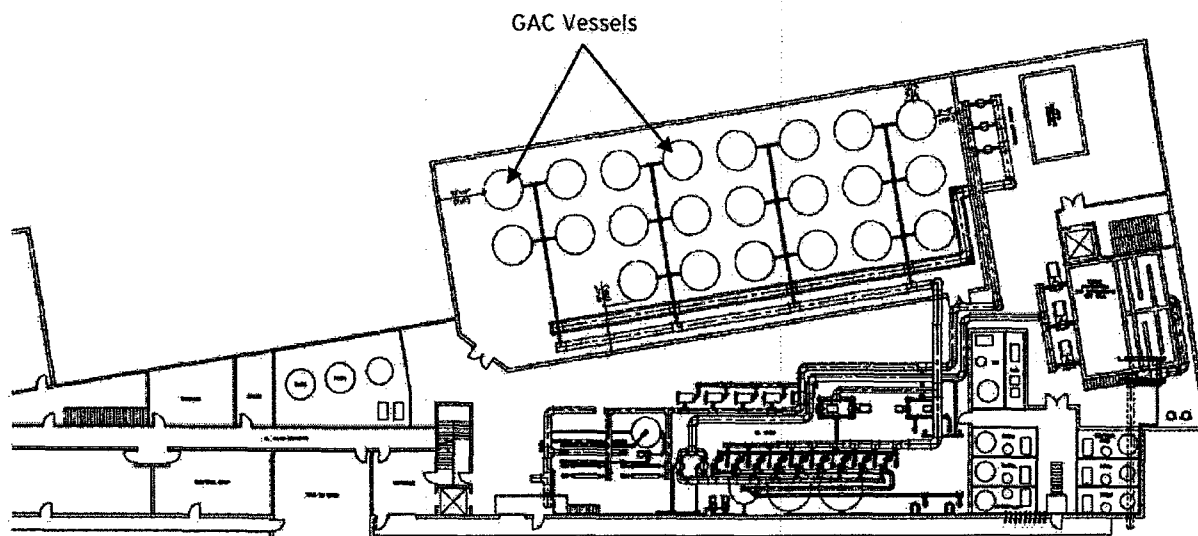
- Granular activated carbon (GAC)
- Air stripping with vapor-phase granular activated carbon for off-gas treatment

Sections ES.1 and ES.2 summarize each technology evaluated under this analysis. Each sub-section presents a concept-level site layout, summary of cost analysis, and advantages and disadvantages.

Section ES.3 presents a summary of findings and recommendations.



ES.1 GAC ALTERNATIVE



Components

- Twenty-two 12-foot diameter, vertical (approx. overall height of 16 feet) GAC vessels operated in parallel

Summary of Cost Analysis

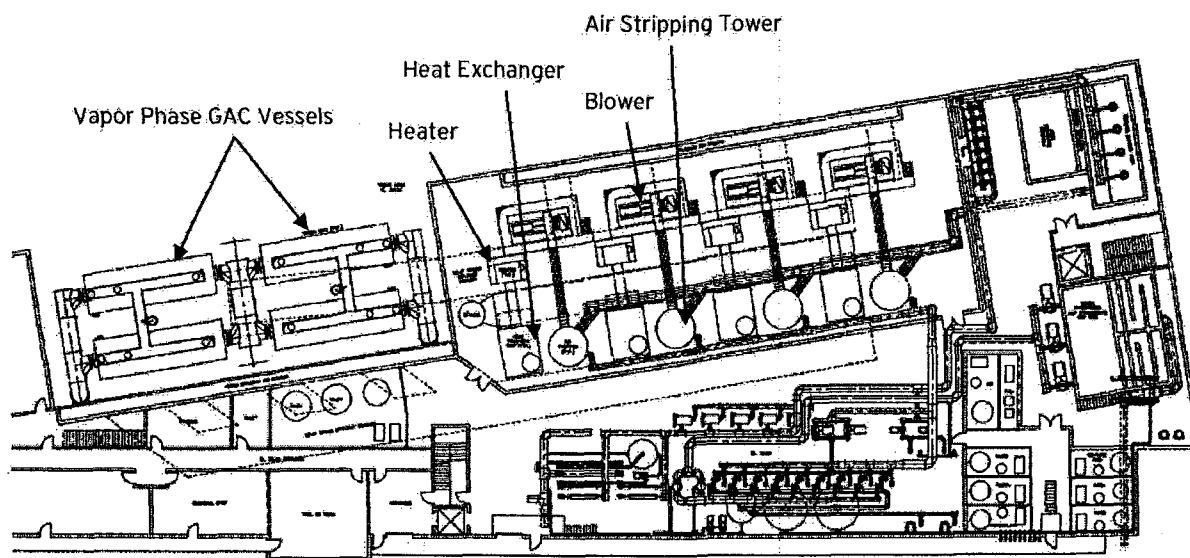
Capital Costs (2012 Dollars) ⁽¹⁾	O&M Costs (2007 Dollars)	Life Cycle Costs (2007 Dollars)
■ \$43.3 million	<ul style="list-style-type: none"> ■ During Time of MTBE Impact (Influent MTBE concentration of 35 µg/L): \$2.5 million ■ After Time of MTBE Impact (Influent MTBE concentration of 2 µg/L): \$0.6 million 	■ \$43.0 million
⁽¹⁾ Capital costs have been estimated in September 2007 dollars and escalated to the mid-point of construction (i.e., July 2012). The capital cost (in 2007 dollars) for the GAC option is \$29.1 million and was used in the life cycle analysis.		

Advantages and Disadvantages

Advantages	Disadvantages
<ul style="list-style-type: none"> ■ Lower initial capital cost ■ Lower net present value based on the 20-year life cycle cost analysis ■ GAC vessels would be located within a building and would not result in visual impacts on the surrounding community ■ Ability to treat a wide range of contaminants at varying concentrations ■ Ability to increase flow rate to 15 mgd without additional capital costs 	<ul style="list-style-type: none"> ■ Frequent truck trips for carbon replacement during the time of MTBE impact (1-2 change-outs per week) ■ Higher operation and maintenance costs (than for air stripping) during the time of MTBE impact; however, costs would be similar to the air stripping once MTBE subsides ■ More intensive VOC monitoring in treated water to detect breakthrough



ES.2 AIR STRIPPING ALTERNATIVE



Components

- Four 12-foot diameter, vertical air stripping towers (60 feet tall) with a design maximum air-to-water ratio of 115:1
- Vapor phase GAC treatment of off-gas consisting of four 12-foot diameter, horizontal vessels (40 feet long)
- Four 35,700 cfm blowers with ductwork

Summary of Cost Analysis

Capital Costs (2012 Dollars) ^[1]	O&M Costs (2007 Dollars)	Life Cycle Costs (2007 Dollars)
■ \$61.6 million	<ul style="list-style-type: none"> ■ During Time of MTBE Impact (Influent concentration of 35 µg/L): \$1.1 million ■ After Time of MTBE Impact (Influent concentration of 2 µg/L): \$0.7 million 	■ \$53.3 million

[1] Capital costs have been estimated in September 2007 dollars and escalated to the mid-point of construction (i.e., July 2012). The capital cost (in 2007 dollars) for the air stripping option is \$41.3 million and was used in the life cycle analysis.

Advantages and Disadvantages

Advantages	Disadvantages
<ul style="list-style-type: none"> ■ Lower operation and maintenance costs during the time of MTBE impact to the plant ■ Less frequent truck trips for carbon change-outs ■ Ability to treat a wide range of VOCs ■ Ability to increase water flow to approximately 16 mgd total (however, additional capital investment required to increase blower capacity) 	<ul style="list-style-type: none"> ■ Potential noise issues ■ Higher energy usage ■ Highest initial capital cost ■ Highest net present value based on a 20-year life cycle cost analysis ■ Tower heights result in visual related impacts ■ Potential community concern with air discharges